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CCA GCA ACC AAT GAT GCC CGT T-TAMRA-3' CA GCA ACC AAT GAT GCC CGT T-TAMRA-3'

CCA GCA AGC ACT GAT GCC TGT T-TAMRA-3' CA GCA AGC ACT GAT GCC TGT T-TAMRA-3'

Fig. 1A

Fluorescent Dyes

| | Absorbance Maxima | Emission Maxima |
|----------------------------|-------------------|-----------------|
| Fluorescein | 494nm | 525nm |
| Tetrachloro fluorescein | 521 nm | 536nm |
| TAMRA | 565nm | 580nm |

Fig. 1B

Cleaved Fragments:

Fig. 1C

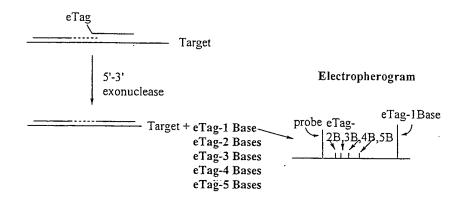


Fig. 3A

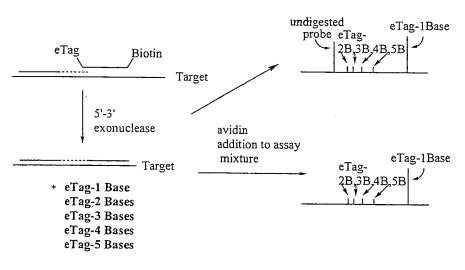


Fig. 3B

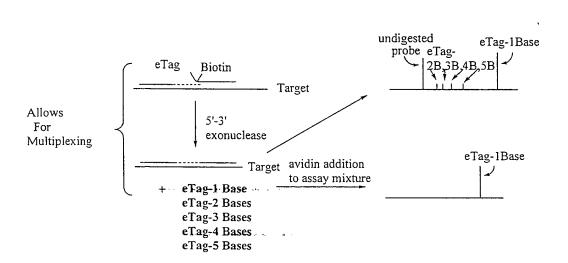


Fig. 3C

Fig. 3D

Fig. 4

| e-tag Reporter | Elution Time on CE, min | Mass |
|--|----------------------------|------|
| HO O O O | 6.4 | 778 |
| CI CI COOH NH | 2 N 7.1 | 925 |
| CI CI OH NH2 OHO | 7.3 | 901 |
| CI CI COOH NH2 HN CI CI O-P-O-N N HO O O O | 7.7 | 994 |
| CI CI COOH NH NH OME OME OME OF O | 8.0 | 985 |
| CI COOH NH2 O-P-O-OH OH | 9:25 | 961 |

ਯ Fig. 5

| e-tag Reporter | Charge | Elution Time, min |
|---|----------------------------------|-------------------|
| O_Fluorescein | | |
| HN () O-P-C ₃ C ₃ C ₃ C ₃ C ₃ - | -8 | 12.1* |
| O _✓ Fluorescein | | |
| $\begin{array}{c} \begin{array}{c} O \\ O \\ O \end{array}$ $\begin{array}{c} O \\ O \end{array}$ $\begin{array}{c} O \\ O \end{array}$ $\begin{array}{c} O \\ O \end{array}$ Fluorescein | C ₆ C ₆ —9 | 12.7 |
| HN() 0-P-O-C ₆ C ₆ C ₆ C ₆ | C ₆ —dC -8 | 12.8 |
| O Flúorescein O PO PO C $_6$ | -7 | 13.1 |
| O Fluorescein O $+N$ O $-P$ $-O$ $-C_3C_3C_9$ | -6 | 13.0 |
| O Fluorescein $O = HN() O P O - C_6 C_6 C_6 - C_6 C_6 C_6 $ | -6 | 13.4 |
| OFFluorescein HN OFFluorescein HN OFFluorescein HN OFFluorescein OFFluorescein | -5 © | 12.8* |
| HN () 0-P-0-C ₃ C ₉ (| -5 C | 13.2* |
| HN() 0-P-O-C ₉ C ₉ | | 14.8 |
| O Fluorescein HN () O P O TTTdC | -6 | 17.3 |
| OFFluorescein OFF-O-TTdC | -5 ** | 17.0 |
| O Fluorescein O O O O O O O O O O O O O O O O O O O | -4 | 15.2* |
| O Fluorescein HN O O P O TTdC O Fluorescein HN O O O O O O O O O O O O O O O O O O O | -4 | 16.5 |

Fig. 6

Fig. 7

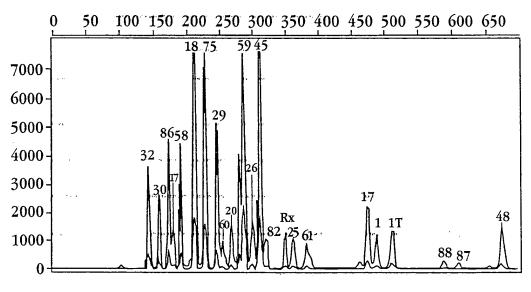


Fig. 8

Fig. 9

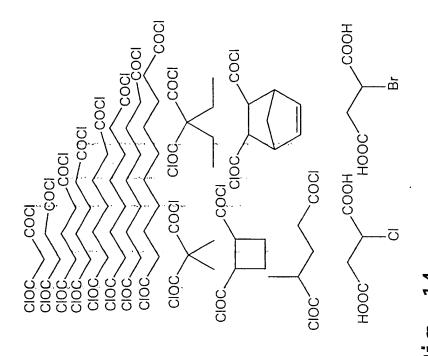
Fig. 10

Fig. 11

$$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \\ \\ \\ \end{array} \end{array} \end{array} \begin{array}{c} \begin{array}{c} \\ \\ \\ \end{array} \end{array} \begin{array}{c} \\ \\ \end{array} \begin{array}{c} \\ \\ \end{array} \begin{array}{c} \\ \\ \end{array} \end{array} \begin{array}{c} \\ \\ \\ \end{array} \begin{array}{c} \\ \\ \\ \\ \end{array} \begin{array}{c} \\ \\ \\ \\ \end{array} \begin{array}{c} \\ \\ \\ \end{array} \begin{array}{c}$$

Fig. 12

Fig. 13



H₂N H₃N H₂N H₃N H₂N H₃N H₄N H₂N H₃N H₄N H

Fig. 15

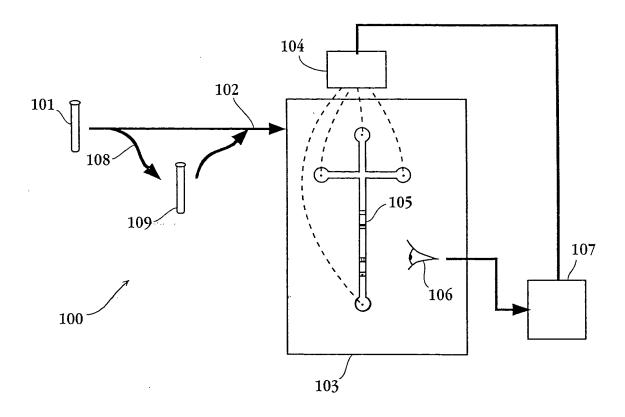
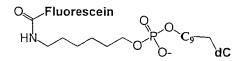


Fig. 16

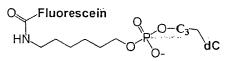
Fig. 17A

Fig. 17B

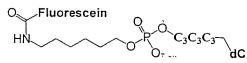
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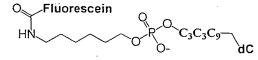
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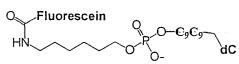
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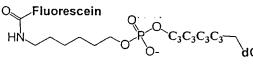
ACLA028



ACLA029

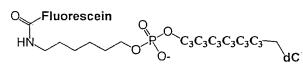


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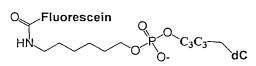


ACLA031

ACLA032



ACLA033



ACLA034

ACLA035

ACLA036

Fig. 17C

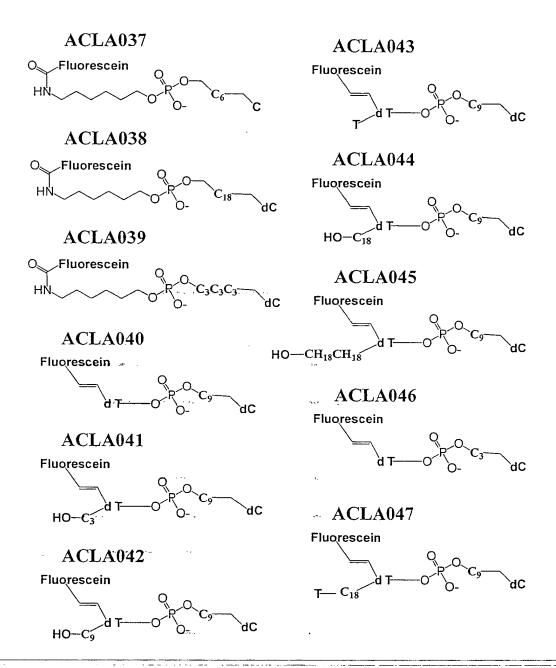
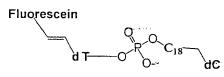


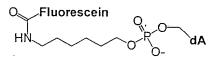
Fig. 17D

ACLA048

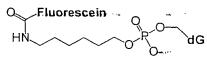
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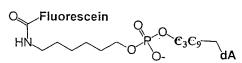
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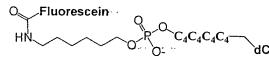
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ACLA052



ACLA053



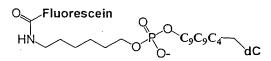
ACLA054

O Fluorescein
HN
$$O C_4 C_4 C_4 C_4$$
dC

ACLA055

O Fluorescein
$$C_9C_4$$
 C_9C_4 C_9C_4

ACLA056



ACLA057

O Fluorescein
$$C_{18}$$
 C_{18} C_{18}

ACLA058

Fluorescein
$$C_{9}C_{9}C_{9}C_{9}C_{9}C_{9}$$

$$C_{9}C_{9}C_{9}C_{9}C_{9}C_{9}$$

ACLA059

Fig. 17E

Fig. 17F

Fig. 17G

Fig. 17H

ACLA089

ACLA090

Fluorescein

$$C_3C_3C_3TC_3$$
 d T—O O O dC

ACLA091

Fluorescein

ACLA092

Fluorescein

$$C_{12}TC_{12}$$
 d T C_{9} C_{9}

ACLA093

Fluorescein

ACLA094

Fluorescein

$$C_{12}$$
 C_{12} C_{12} C_{12} C_{12} C_{12} C_{12}

ACLA095

Fluorescein

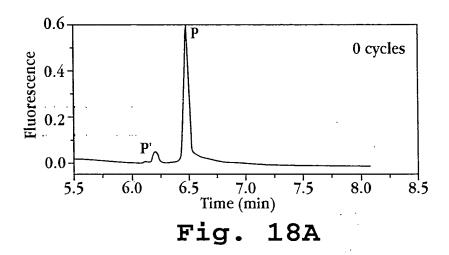
ACLA096

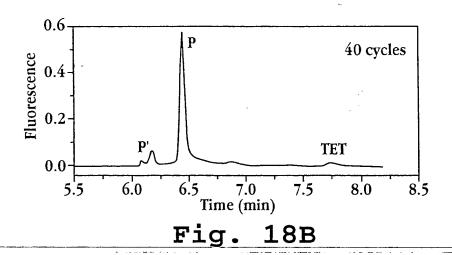
OFluorescein

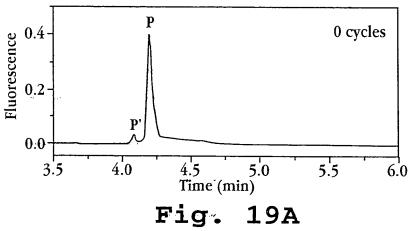
ACLA097

Fig. 17I

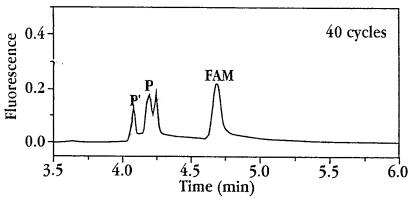
Fig. 17J

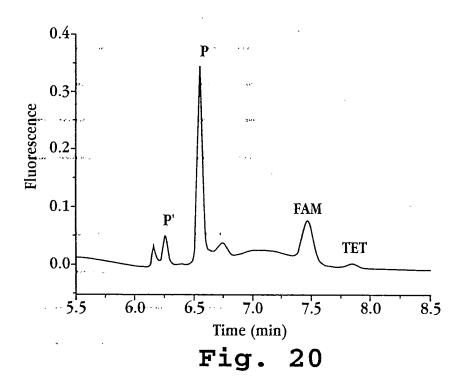












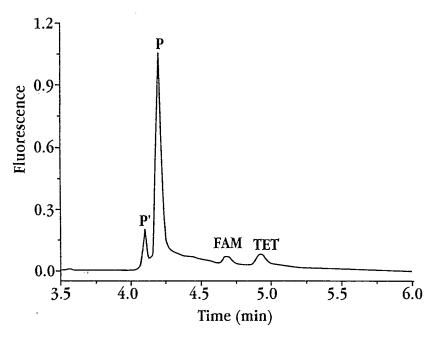


Fig. 21

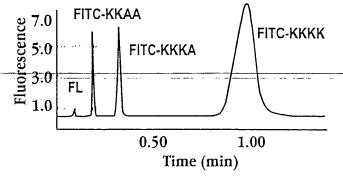


Fig. 22

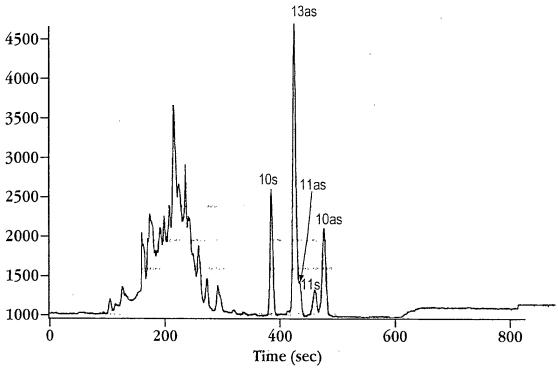
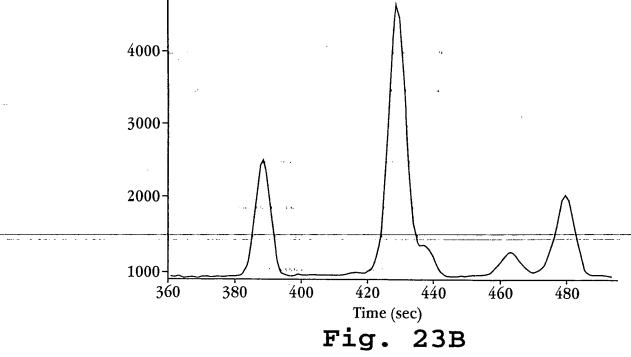


Fig. 23A



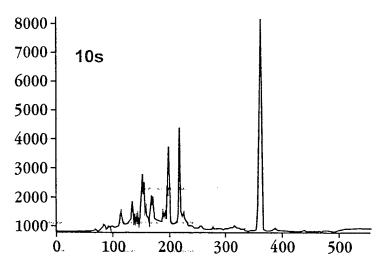


Fig. 23C

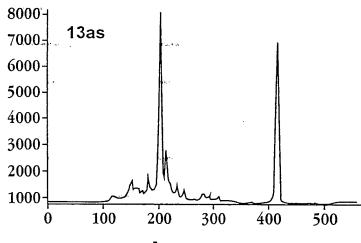
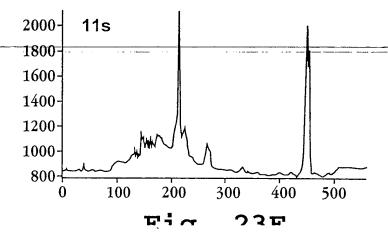


Fig. 23D



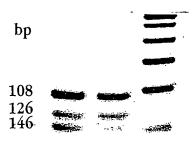


Fig. 23F

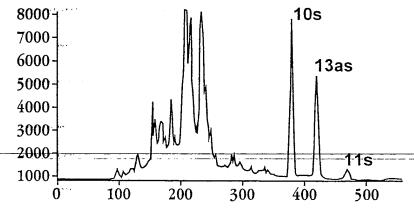


Fig. 23G

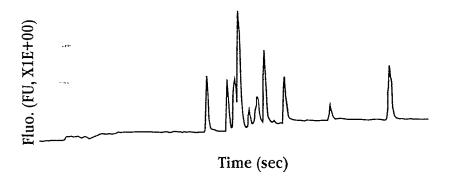


Fig. 24

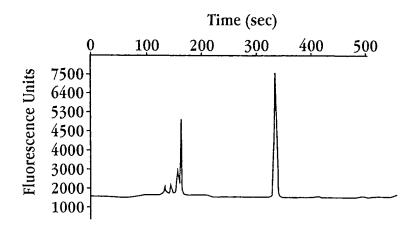


Fig. 25A

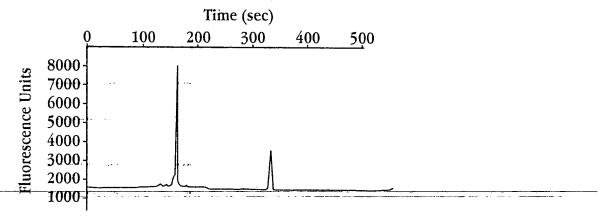


Fig. 25B

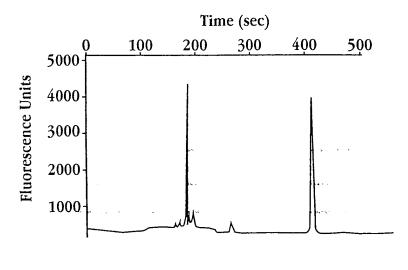


Fig. 25C

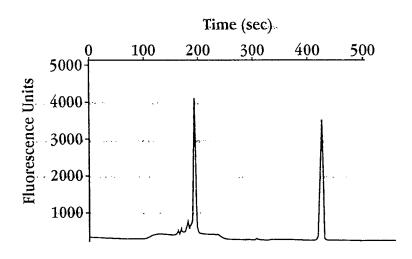


Fig. 25D

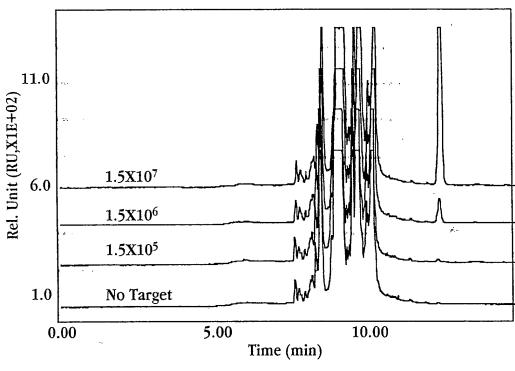


Fig. 26

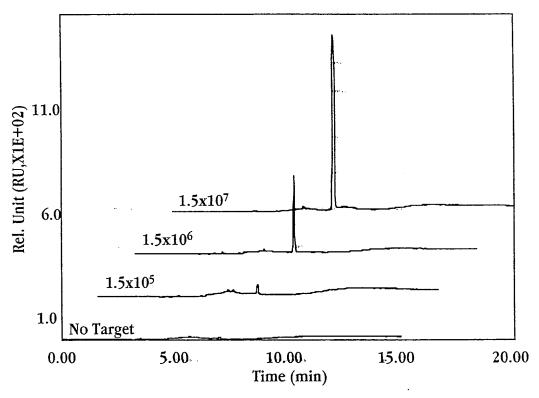


Fig. 27

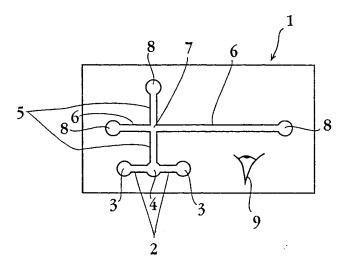


Fig. 28A

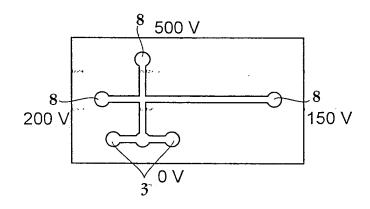


Fig. 28B

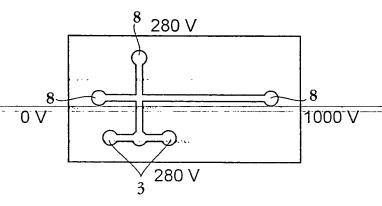


Fig. 28C

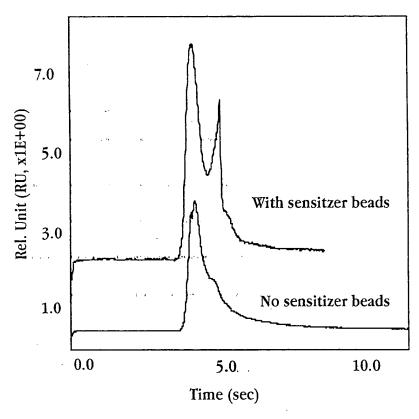


Fig. 29

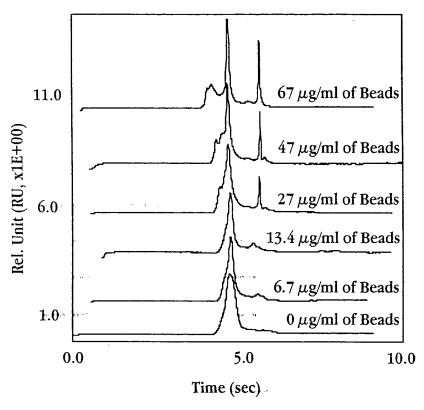


Fig. 30

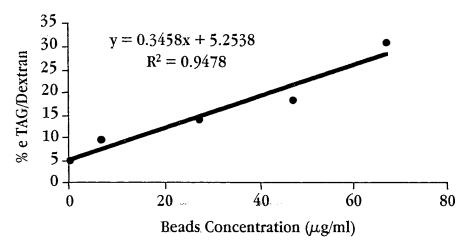


Fig. 31

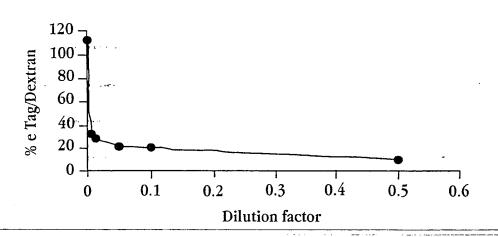
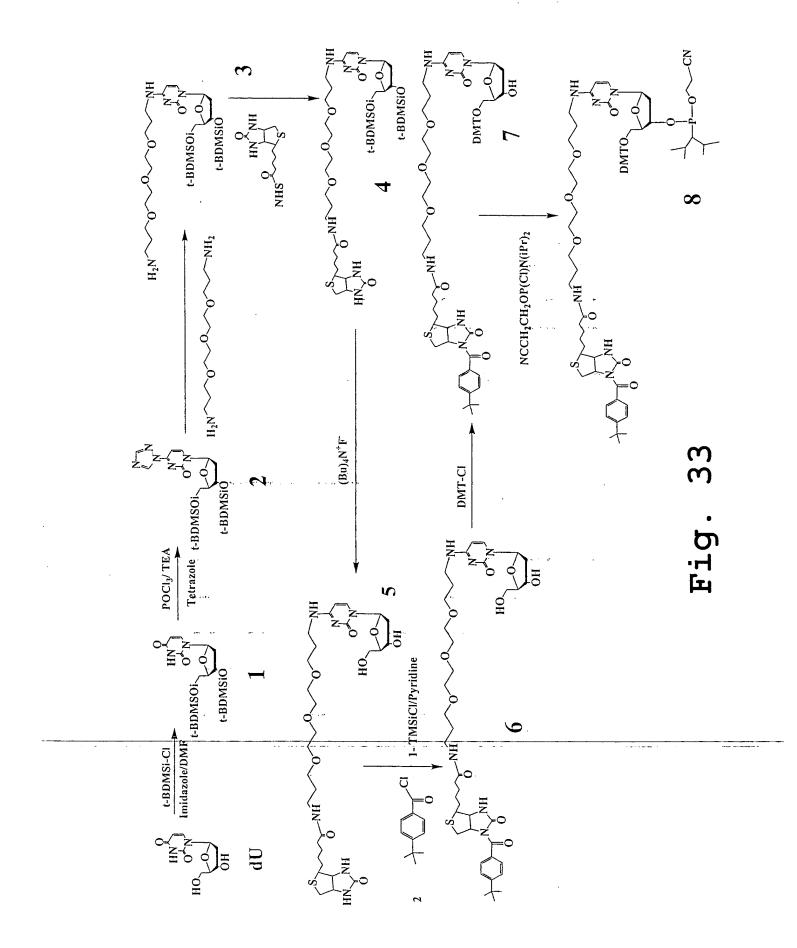


Fig. 32



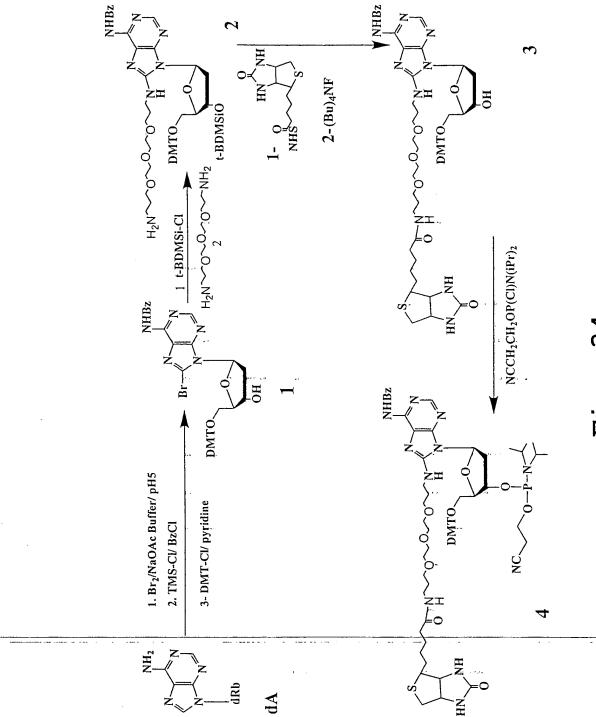


Fig. 34